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(71)Applicant : WAKO PURE CHEM IND LTD
PIYUARETSUKUSU:KK

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(72)Inventor : HAYASHIDA KAZUYOSHI
KAKIZAWA MASAHIKO
UMEKITA KENICHI
NAWA HIROMI
MURAOKA HISASHI

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(54) SURFACE-TREATING METHOD AND TREATING AGENT

(57)Abstract:

PURPOSE: To suppress a metal contamination through adsorption from a treating liquid by adding a complexing agent, which is so small in amount as to cause no injury of organic-matter contamination, to a treating agent or rinsing liquid in a semiconductor surface-treating process.

CONSTITUTION: The surface of a semiconductor is cleaned by a semiconductor surface-treating agent mainly composed of inorganic or organic alkali, hydrogen peroxide and water. After cleaning, the surface is rinsed in ultrapure water and subjected to a semiconductor surface treatment. At the time of performing the treatment, chelating agents or their oxidants having phosphonic acid or one or more of its salts in a molecule or condensed phosphoric acid or its salt is caused to exist in at least one of the semiconductor surface-treating agent and rinsing ultrapure water. Thus, it is possible to suppress the adsorption of a harmful impurity to a surface impurity concentration, where no problem in electric characteristics such as reduction of recombination lifetime and deterioration of oxide-film breakdown voltage arises.

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